



## *Nevada Site Specific Advisory Board (NSSAB)*

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### **Full Board Meeting Molasky Corporate Center Las Vegas, Nevada**

**4:00 p.m. – February 19, 2025**

- Members Present:** Joycelyn Austin-Mabe, Robert Blackstock, John Cole, Juan Diaz, Gary Elgort, Thomas Fisher, Pamela Handor, Mark Hilton (Chair), Tammi Odegard, Anntoinette Rivera, Brandon Schmidt, Kevin Trainor (Vice-Chair)
- Members Absent:** Erik Anderson, Lisa Blandi, Lori Olson-Arzaga, Eddie Williams
- Liaisons Present:** Chris Andres (State of Nevada Division of Environmental Protection [NDEP]), Andrew Bennett (Clark County), Frank Bonesteel and Patrick Lazenby (Nye County Emergency Management [NCEM]), John Klenke (Nye County Natural Resources and Federal Facilities Office [NRFFO]), Diane Path (Lincoln County Commission)
- Liaisons Absent:** Richard Arnold (Consolidated Group of Tribes and Organizations [CGTO]), Bruce Jabbour (Nye County Commission)
- U.S. Department of Energy (DOE):** **Environmental Management (EM) Nevada Program:** Robert Boehlecke (Deputy Designated Federal Officer [DDFO]), Jhon Carilli, Tiffany Gamero, John Myers, Andrew Weber  
**National Nuclear Security Administration/Nevada Field Office (NNSA/NFO):** John Daniels
- Government Contractors:** **Navarro Research and Engineering, Inc. (Navarro):** Irene Farnham, Jeff Jarry, Grant Johnson, Kevin Knapp, Dona Murphy, Glenn Puit, Barbara Ulmer  
**Desert Research Institute (DRI):** Beverly Parker, Chuck Russell  
**U.S. Geological Survey (USGS):** Jeff Sanders
- Members of the Public:** None

## **Open Meeting/Chair's Opening Remarks**

Chair Mark Hilton welcomed and thanked everyone for attending the meeting. Member John Cole moved to approve the draft agenda as presented. The motion was seconded and passed unanimously.

## **Public Comment**

There was no public comment.

## **Liaison Updates**

### **Clark County (*Andrew Bennett*)**

Liaison Andrew Bennett, Director of the Clark County Office of Traffic Safety, thanked the EM Nevada Program for supporting blackout dates for the transportation of low-level waste (LLW) to the Nevada National Security Site (NNSS) during Level 1 national security events. Next month, the county will provide a list to DOE for any upcoming 2025 Level 1 events. He noted that Clark County recently created a position within the fire department to expand its oversight of its HAZMAT team. Liaison Bennett concluded that he looks forward to bringing HAZMAT team members to future meetings.

### **Lincoln County Commission (*Diane Path*)**

Liaison Diane Path had nothing new to report.

### **NCEM (*Patrick Lazenby, Frank Bonesteel*)**

Liaison Patrick Lazenby reported that staff attended the Nevada Emergency Preparedness Association Summit last week in Reno, NV, that included training and networking. Last week, NCEM hosted its Local Emergency Planning Committee meeting. Liaison Frank Bonesteel updated that the aircraft reported on during the last meeting was recovered. Unrelated topics to the NSSAB and the EM Nevada Program, he noted that there is a two-page article on the Atomic Museum in the Vegas Vibe visitor magazine, and the Pahrump Museum is offering a two-volume set on Yucca Mountain for \$50 to support the museum.

### **NRFFO (*John Klenke*)**

Liaison John Klenke had nothing new to report.

### **NDEP (*Christine Andres*)**

Liaison Christine Andres, Bureau of Federal Facilities Chief, reported that her office oversees and regulates many of the NNSS activities conducted by the EM Nevada Program and NNSA/NFO. Several NDEP staff will be attending the Waste Management Symposia in Phoenix, AZ, next month. Liaison Andres was privileged to be asked to coauthor a poster at the conference along with Tiffany Gamero from EM Nevada Program, staff from Navarro, DOE Office of Legacy Management, and NNSA/NFO.

### **NNSA/NFO Update (*John Daniels, NNSA/NFO*)**

Mr. John Daniels, NNSA/NFO Federal Public Affairs Officer, had nothing new to report.

## **U.S. DOE Update** (*Robert Boehlecke, DOE*)

DDFO Robert Boehlecke provided updates on the following topics:

- **New RWAP Manager**: With the retirement of Radioactive Waste Acceptance Program (RWAP) manager Marilew Bartling, Navarro has hired Jeff Jarry. He has more than four decades of experience in the field. His career started at the NNS. Mr. Jarry has worked at Pantex in waste certification and was responsible for radioactive and mixed waste management facilities at Sandia National Laboratories. He welcomed the Board to introduce themselves and ask him questions during the dinner break.
- **Industrial Sites**: Of the 1,805 Industrial Sites corrective action sites (CASs) currently managed by the EM Nevada Program, 1,797 are closed and corrective actions are currently in progress at the remaining eight CASs comprising two large legacy Industrial Sites facilities (Engine Maintenance, Assembly and Disassembly (EMAD) and Test Cell C). Completed activities within the last year:
  - EMAD Building 3900 - roof top chiller unit removal started in July 2024 and completed in August 2024. The twin radiological exhaust stack demolition completed in January 2025.
  - EMAD Building 3901 Train Shed - open air demolition readiness completed
  - Test Cell C - hydrogen Dewar #4 and #5 demolition completed in January 2025
- **Underground Test Area (UGTA)**: Frenchman Flat, Yucca Flat, Rainer Mesa corrective action units (CAUs) are closed and in post-closure monitoring. Pahute Mesa CAU's path to closure: model evaluation, data collection, data analysis, evaluation with model forecasts, followed by a closure report expected in calendar year 2029.
  - Three wells are to be drilled on Pahute Mesa to depths of up to 3,000 feet.
  - Completions to target two aquifers known to be contaminated at other wells
  - Schedule is training from March to April 2025, mobilization in April 2025, drilling from May to July 2025 with about one month spent on each well with a 24/7 operation

## **Follow-up to Annual NNS Environmental Report (NNSER) – Work Plan #2** (*Tiffany Gamero, DOE*)

During the January 15, 2025, Full Board Meeting, Tiffany Gamero briefed and answered Board questions regarding the Annual NNSER – Work Plan #2. The NSSAB was asked to provide, from a community perspective, for ways that Chapter 11 of the NNSER could be enhanced (i.e., readability, presentation of information, etc.).

During the January meeting, Chair Hilton led Board discussion on work plan #2 with the following proposed recommendations provided by members on ways that Chapter 11 of the NNSER could be enhanced:

1. Provide a link to the FFAO in the reference section (*M. Hilton*)
2. Update the Navarro STEM grants information (*M. Hilton*)
3. Add a clarification of the terms “closure” and “post-closure” in the context of the FFAO (*T. Fisher*)

4. Strive for consistency in maps used in the NNSS Environmental Report Summary to match the rest of the document (*L. Olson-Arzaga*)
5. Ensure that all locations referenced are included on the maps (*T. Fisher*)
6. Make some of the maps larger by splitting up onto multiple pages so the symbols can be delineated and clearly seen (*G. Elgort*)
7. Emphasize EM Nevada Program accomplishments earlier in the chapter (*L. Olson-Arzaga*)

After careful consideration and lengthy discussions, Chair Hilton decided to defer the proposed above recommendations to tonight’s agenda. In advance, the NSSAB was provided with a link to the recording of Ms. Gamero’s briefing to prepare for the meeting. NSSAB members were asked to ponder these proposed recommendations and consider any additional enhancements to Chapter 11 of the NNSSEER.

As there were no additional questions for the presenter or additional recommendations for enhancements to Chapter 11 of the NNSSEER, Member Cole made a motion to approve the seven proposed recommendations listed above. The motion was seconded and passed unanimously.

The NSSAB Office will submit a recommendation letter on behalf of the NSSAB for EM Nevada Program’s consideration and response. Ms. Gamero thanked the NSSAB for its interest and consideration regarding work plan item #2.

**Opportunities to Observe Low-Level Waste (LLW) Facility Evaluations ~ Work Plan #4 and Real Time Radiography ~ Work Plan #5** (*Jhon Carilli, DOE*)

- **NSSAB – Work Plan Item #4**
  - From a community perspective, the NSSAB will provide recommendations for how the RWAP facility evaluations could be enhanced
- **NSSAB Path Forward – Work Plan Item #4**
  - Background: RWAP conduct facility evaluations at generator sites throughout the country. These facility evaluations evaluate the generator’s waste certification program to verify continued implementation of the NNSW Waste Acceptance Criteria.
  - NSSAB will be provided with detailed briefing on facility evaluations during the April 16, 2025, NSSAB meeting
  - Two NSSAB members are invited to observe RWAP conducting a facility evaluation and present their observations to the Full Board during the NSSAB Meeting on June 18, 2025
  - NSSAB recommendation is due in June 2025
- **Proposed RWAP Facility Evaluations for NSSAB Observations**
  - To foster NSSAB understanding of waste generator missions and the depth of RWAP facility evaluations, EM Nevada is offering an opportunity for two NSSAB members to observe RWAP conducting a facility evaluation:

Date	Generator	Location
March 10-14	TWPC – United Cleanup (UCOR) – audit**	Oak Ridge, TN
March 24-28	Fluor/BWXT Portsmouth (FBP) – audit**	Piketon, OH
April 21-24	Sandia National Laboratories – surveillance*	Albuquerque, NM
May 5-9	University of TN-Battelle (ORNL) - audit**	Oak Ridge, TN
June 2-5	Perma-Fix-DSSI – surveillance*	Oak Ridge, TN

- Selected modules assessed: quality assurance, radiological characterization, chemical characterization, traceability, and transportation
- Time commitment:
  - Two days for surveillances\* plus two days travel (Mon. – Thurs.)
  - Three days for audits\*\* plus two days travel (Mon. – Fri.)
- **NSSAB – Work Plan Item #5**
  - From a community perspective, the NSSAB will provide recommendations for how the RWAP real time radiography (RTR) could be enhanced
- **NSSAB Path Forward – Work Plan Item #5**
  - Background: RWAP conducts RTR (essentially x-ray technology) on waste containers received by generators across the DOE complex at Area 5 RWMC. RTR evaluations are used to verify that waste matches the profile description, and no indeterminate items are identified prior to disposal at the NNSS.
  - NSSAB will be provided with detailed briefing on RTR evaluations during the April 16, 2025, NSSAB meeting
  - Two NSSAB members are invited to observe RWAP conducting an RTR evaluation and present their observations to the Full Board during the NSSAB Meeting on June 18, 2025
  - NSSAB recommendation is due in June 2025
- **Proposed RWAP RTR Evaluations for NSSAB Observations**
  - To foster NSSAB understanding of waste generator missions and the depth of RWAP RTR evaluations, EM Nevada is offering an opportunity for two NSSAB members to observe RWAP conducting an RTR evaluation
    - Location will be at Area 5 Radioactive Waste Management Complex (RWMC) on the NNSS
    - Time commitment: one full day
    - Scheduled in April – May 2025 to ensure that weather is favorable based on availability of the NSSAB members who observe

Presenter Jhon Carilli noted that there had been recent schedule changes for facility evaluations:

- Audit for TWPC – United Cleanup (UCOR) in Oak Ridge, TN has been moved to March 17-21, 2025
- Surveillance for Sandia National Laboratories in Albuquerque, NM has been moved to May 5-8, 2025

Chair Hilton led the Board discussion and requested NSSAB members that are interested in observing LLW facility evaluations and RTR evaluations in support of work plan items #4 and #5. NSSAB members selected to observe **LLW facility evaluations** (work plan item #4) are Members John Cole and Anntoinette Rivera. Alternates are as follows: Member Tammi Odegard as first alternate, Member Gary Elgort as second alternate, and Member Thomas Fisher as third alternate. NSSAB Members Cole and Rivera will provide an oral report on their observations at the June 18th NSSAB meeting.

NSSAB members selected to observe **RTR Observations** (work plan item #5) are Members Tammi Odegard, Robert Blackstock, and Brandon Schmidt. DDFO Boehlecke approved that three NSSAB members may observe an RTR observation on the same day (TBD). NSSAB Members Odegard, Blackstock and Schmidt will provide an oral report on their observations at the June 18th NSSAB meeting. The NSSAB Office will support NSSAB members with travel and planning logistics.

## FY 2027 Prioritization ~ Work Plan Item #1

- **Tonight's Path Forward**
  - Overview
  - Ranking process explanation
  - Briefing of each task (five [5] tasks total)
    - Waste management disposal
    - Post-closure monitoring
    - Industrial Sites
    - Stakeholder support
    - Groundwater characterization
  - Group discussion
  - Individual rankings
  - Prioritization tallying
  - Vote on final recommendation

### Overview, Andrew Weber, Management Analyst, EM Nevada Program

- **EM Nevada Program Baseline**

Utilized by EM Nevada Program to support life cycle planning to execute its mission

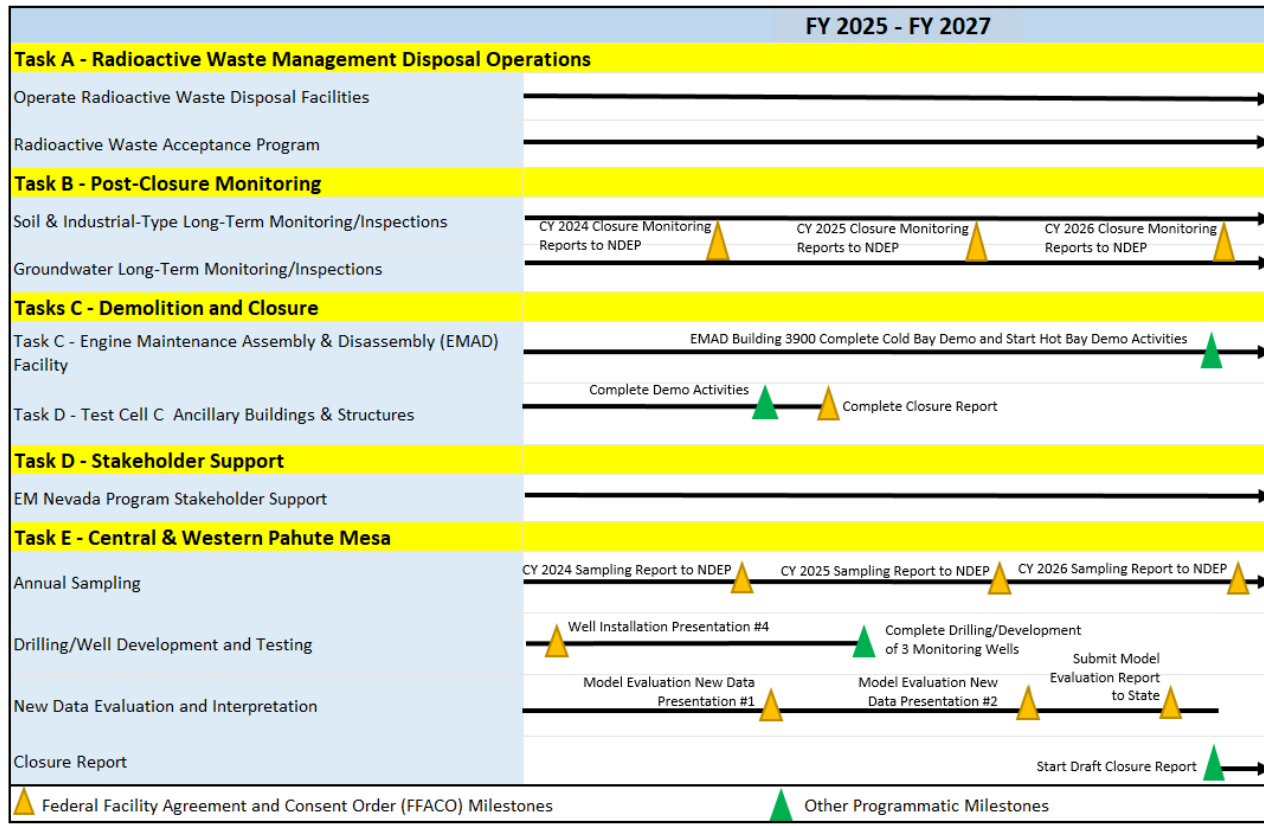
  - Three (3) major components make up the baseline
    - **Scope of Work:** Description of all work elements that need to be accomplished
    - **Cost:** Estimated cost to accomplish the scope of work
    - **Schedule:** Timeline and prioritization of the scope of work

*Elements identified in the EM Nevada Program baseline are fully integrated*
- **EM Nevada Program Baseline Planning Considerations**
  - Annual fundings
    - Scope is prioritized to maximize amount of work that can be accomplished
  - Scope uncertainties
    - Risk analysis performed to account for cost and schedule impacts associated with unknowns, such as: extreme weather, subsurface conditions, extent of contamination, etc.
- **EM Nevada Program Baseline Maintenance**
  - Performance against the baseline
    - Contractors report monthly performance status to EM Nevada Program, where it is integrated and analyzed, then compared against the EM Nevada Program baseline plan
  - Baseline changes
    - Changes to baseline are required periodically to account for addition or deletion of scope, scientific strategy changes, or contract modifications
- **Federal Budget Process**



Example of DOE budget planning timeline

- **EM Nevada Baseline Schedule**



In response to Board questions, the following clarifications were provided:

- The funding for EM Nevada Program activities is all federal.
- Test Cell C planned completion date is planned in the baseline for FY 2025.

**Ranking Process, Barbara Ulmer, Facilitator**

- **The Ranking Process**
  - Presentation of each of the five (5) tasks (designated by letters)
  - Group discussion with members and liaisons
  - Each member will rank the tasks with 1-5 points using their worksheet
  - NSSAB Office will tally the rankings and present the results to the Full Board tonight
  - Further discussion, if necessary
  - NSSAB will vote on final ranking recommendation

**Waste Management Disposal Task, Jhon Carilli, LLW Activity Lead**

- **Task A –Radioactive Waste Management Disposal Operations**
  - Maintain capability to safely receive and dispose approximately 800,000 million cubic feet per year of LLW, MLLW, and classified waste from on-site and off-site generators
  - Continue environmental monitoring activities
  - Construct and close waste cells in Area 5 RWMC, as necessary
    - Cells 29 and 30 are in use for LLW
    - Seeding and transplants on several closure covers to begin in February 2025
  - Maintain safe and compliant waste disposal in accordance with applicable regulations
  - Continue generator facility evaluations and waste verifications conducted by Radioactive Waste Acceptance Program (RWAP) per the NNSW Waste Acceptance Criteria

- Risk/consequences of delay:
  - People and the environment
    - NNSS-specific: Potential for inability to dispose of NNSS wastes resulting in additional costs for off-site disposal
    - Waste stored at other DOE sites may not have a safe and secure disposal path, potentially impacting the public and environment
  - Project
    - DOE complex: additional costs; inability to dispose of some wastes
  - Regulatory
    - DOE agreements and schedules with NDEP could be impacted
- Milestone:
  - Could impact EM Nevada Program demolition and closure activities

In response to Board questions, the following clarifications were provided:

- RWAP attempts to conduct either a surveillance or an audit on each generator annually. An exception is if a generator has not shipped waste to the NNSS for an extended period, although a facility evaluation would be conducted before the generator could resume shipping waste to the NNSS. If a generator's waste certification program has been suspended, an audit is required before the generator could resume shipping waste to the NNSS. For verifications, there is a permit requirement for a regulated facility to conduct either visual verification or an RTR observation on ten percent of the waste.
- Approximately 70 percent of the costs (constructing or closing waste cells, RWAP facility evaluations, visual verifications, emplacing the waste, maintaining permits, etc.) of disposing waste at the NNSS is related to EM and 30 percent is attributed to other generators, NNSA and DOE Office of Science as examples.
- The EM Nevada Program missions include environmental restoration and waste disposal. The baseline for environmental restoration has a planned completion date in FY 2030 with transition to the NNSS landlord in FY 2031. The baseline for the waste disposal mission at the NNSS is currently planned through FY 2035, although there is an expectation for a need for the facility beyond that date. Any final decisions for the waste disposal mission will be worked through with DOE HQs and the NNSS landlord.
- Historically, there has not been significant unplanned costs associated with activities included in the EM scope unless workers encountered unexpected conditions, unknown asbestos found in the skim coat in an Industrial Sites facility or an unexpected change in drilling techniques, as examples.

**Post-Closure Monitoring Task, Tiffany Gamero, Regulatory/FFACO Lead, EM Nevada Program**

• **Task B – Post-Closure Monitoring**

- Description:
  - Conduct post-closure monitoring on the NNSS
    - Post-closure inspections and maintenance
    - Groundwater sampling and analysis
    - Water level monitoring
    - Groundwater monitoring network maintenance
    - Reporting
  - Continue work on pre-transition activities
    - Formal transition activities to begin in earnest in FY 2028
- Risk/consequences of delay:



- People and the environment
  - Potential delay in identification of changes to implemented controls at closed sites
  - Increased risk that potential contaminant movement and/or potential exposure pathways may not be immediately recognized
- Project
  - Delayed ability to monitor radionuclide migration
- Regulatory
  - DOE agreements and schedules with NDEP could be impacted
- Milestone:
  - Submit annual closure monitoring reports to NDEP

In response to Board questions, the following clarifications were provided:

- Upon completion of the EM Nevada Program mission, closed sites on the NNSS will transition to the NNSS landlord.
- Under the UGTA Activity, there are three closed CAUs with groundwater post-closure monitoring for sampling, analysis, and reporting. The remaining UGTA CAU to be closed is Pahute Mesa. Under Industrial Sites, there are about 150 sites that have contamination above action levels remaining in place and therefore have use restrictions and post-closure monitoring requirements.

**Industrial Sites Task, Tiffany Gamero, Regulatory/FFACO Lead, EM Nevada Program**

- **Task C – EMAD Facility**
  - Description:
    - Complete demolition of Building 3900 (cold portion)
    - Start demolition of Building 3900 (hot portion)
  - Risk/consequences of delay:
    - People and the environment
      - Any corrective actions would be delayed
    - Project
      - Delayed completion of Environmental Restoration mission
    - Regulatory
      - DOE agreements and schedules with NDEP could be impacted
  - Milestones:
    - Any FFACO milestones (TBD) could be impacted

In response to Board questions, the following clarifications were provided:

- Activities completed at the EMAD facility have focused on the ancillary structures, the water tower, substations, stacks, external HVAC system, hazardous materials removal (light bulbs, ballasts, equipment, etc.), and readiness of demolition of the Train Shed. Estimates around 15 percent of the overall budget completed on the EMAD facility demolition.
- The roof of the EMAD cold bay leaks during a rain event, although water pumped from the basement did not include any contamination. The roof over the contaminated portion of the EMAD facility was repaired several years ago and stopped the leaking, although at some point it will start leaking again.

## **Stakeholder Support Task, Glenn Puit, Navarro Strategic Communications Manager**

### **• Task D – Stakeholder Support**

- Descriptions:
  - Develop and disseminate information on EM Nevada Program activities to diverse stakeholder groups
    - General public; NSSAB; intergovernmental liaisons; other local and regional government leaders; waste generator community; technical peers; and DOE headquarters
  - Outreach and related products planned and prepared in coordination with technical projects, such as: Underground Test Area (UGTA), RWAP, etc.
    - NSSAB, LLW Stakeholders Forum, and other intergovernmental meetings (local and national), NNSS tours of EM sites
    - Community and educational outreach events, STEM grants
    - Website content, presentations, fact sheets, articles, videos, and social media posts

In response to Board questions, the following clarifications were provided:

- The Groundwater Open House flyer was published in Spanish to broaden outreach efforts to citizens in rural communities.
- Historically, the EM Nevada Program has celebrated its successes with the completion of the Soils Activity and the transition of closed sites on the Tonopah Test Range to the DOE Office of Legacy Management. Future celebrations of successes will be considered for the Pahute Mesa CAU closure and completion of demolition of Industrial Sites facilities.

## **Groundwater Characterization Task, John Myers, UGTA Activity Lead, EM Nevada Program**

### **• Task E – Central and Western Pahute Mesa**

- Descriptions:
  - Model Evaluation
    - Annual Sampling
      - ❖ Groundwater sampling
      - ❖ Water level measurements
      - ❖ Develop Annual Sampling Report
    - Complete New Data Evaluation & Interpretation & Model Evaluation Report
  - Start draft Closure Report preparation
- Risk/consequences of delay:
  - People and environment
    - Low risk that potential contaminant movement and/or exposure pathways may not be immediately recognized
  - Project
    - Delayed completion of Environmental Restoration mission
  - Regulatory
    - DOE agreements and schedules with NDEP could be impacted
- Milestones:
  - Submit CY 2026 Annual Sampling Report to NDEP
  - Complete Status Presentation to NDEP
  - Submit Model Evaluation Report to NDEP

In response to Board questions, the following clarifications were provided:

- Groundwater transport models forecast that contamination will remain within federally controlled lands surrounding the NNSS over the next 1,000 years.
- The well drilling sites near tests were purposely chosen to provide additional data to include in model evaluation.
- If there is a significant change (a large earthquake as an example) to the conditions for closed Soils, Industrial Sites, or groundwater sites, the EM Nevada Program would revisit the closure in consultation with NDEP.

Chair Hilton led a Board discussion to address any further thoughts, concerns, comments, suggestions, or questions related to the work plan item #1 for FY 2027 Prioritization. Liaisons shared perspectives from their organizations. A break was taken to tally the individual prioritizations into a group ranking.

After the announcement of the group ranking results and after further Board deliberation, Vice-Chair Kevin Trainor moved to approve the prioritization rankings listed below as a formal recommendation for submission to the EM Nevada Program for consideration during its budget process. The motion was seconded and passed unanimously.

Rank	Task	Title
1	E	Central and Western Pahute Mesa (Groundwater)
2	B	Post-Closure Monitoring
3	A	Radioactive Waste Management Disposal Operations
4	D	Stakeholder Support
5	C	EMAD Facility (Industrial Sites)

DDFO Boehlecke thanked the NSSAB for its candid discussion regarding the prioritizations for FY 2027. The NSSAB Office will submit a recommendation letter on behalf of the NSSAB for consideration and response from the EM Nevada Program.

### **Other NSSAB Business** *(Mark Hilton, Chair)*

### **NSSAB Update on LLW Stakeholders Forum**

Chair Hilton shared items of interest from his attendance at the LLW Stakeholders Forum held on February 6, 2025. He encouraged members to participate in these meetings in the future should they get the opportunity.

### **EM SSAB Spring National Chairs Meeting**

The EM SSAB Spring National Chairs Meeting will be held on April 22 – 24, 2025, hosted by the EM Nevada Program in Las Vegas, NV. A tour of the NNSS will be conducted on the first day. The meeting on the next day will include update briefings and the round robins from each of the eight EM advisory boards presenting topics to EM Headquarters Senior Management that highlight the boards' top interest/concerns and accomplishments. On the last day, the meeting will be held in the morning and conclude around noon. Representing the NSSAB, Chair Hilton and Vice-Chair Trainor will participate with the other chairs and vice-chairs.

Chair Hilton began a Board discussion with the round robin topics that were to be presented during the EM SSAB Spring National Chairs Meeting:

**Board Accomplishments:**

- Successful Board recruitment of new members from a variety of communities surrounding the NNSS (G. Elgort)

**Board Concerns:**

- Lack of opportunities for member participation leading to lower retention (G. Elgort)
- Create more opportunities for Board participation outside of the NNSS (A. Rivera)

Member Cole made a motion to adopt the slate of round topics listed above. The motion was seconded and passed unanimously.

**Meeting Wrap-Up and Adjournment**

After Chair Hilton's closing remarks, Member Thomas Fisher made a motion to adjourn the meeting. The motion was seconded and passed unanimously. The meeting was adjourned at 8:18 p.m.